

1 **CLAIMS**

2 What is claimed, is:

- 3 1. A method for controlling access to an object in a data
4 processing system, the method comprising:
5 receiving an access request to access the object from a
6 task;
7 classifying the access request into one of critical and
8 non-critical classes in dependence on stored access control
9 data associated with the object and the task;
10 granting the task access to the object and storing data
11 indicative of the access in an access log if the access is
12 classified into the non-critical class; and,
13 in the event that the access is classified into the
14 critical class, granting or denying the task access to the
15 object in dependence on the contents of the access log and
16 the stored access control data.
- 17 2. A method as recited in claim 1, further comprising, in
18 the event that the access is classified into the
19 non-critical class, granting or denying the task access to
20 the object in dependence on the access control data, and
21 storing data indicative of the grant or denial in the access
22 log.
- 23 3. A method as recited in claim 1, wherein the
24 non-critical class comprises a plurality of subclasses and
25 the classifying comprises classifying the access request
26 into one of the subclasses in dependence on the stored
27 access control data.

1 4. A method as recited in claim 1, wherein the subclasses
2 comprise a first subclass and a second subclass.

3 5. A method as recited in claim 4, further comprising
4 storing recovery data in the access log if the access is
5 classified into the second subclass.

6 6. A method as recited in claim 5, further comprising:
7 inspecting the access log to identify a bad grant
8 decision based on the contents of the access log and the
9 access control data; and,
10 on detection of a bad grant decision, rolling back any
11 objects affected by the bad grant decision.

12 7. A method as recited in claim 6, wherein the rolling
13 back comprises recovering data overwritten in the object.

14 8. A method as recited in claim 6, further comprising
15 performing the inspecting periodically.

16 9 A method as recited in claim 6, further comprising
17 performing the inspecting during periods in which the data
18 processing system is otherwise idle.

19 10. An apparatus for controlling access to an object in a
20 data processing system, the apparatus comprising: an access
21 control data store for storing access control data
22 associated with the object and the task; an access log;
23 access control logic for receiving a request to access the
24 object from a task; decision classifier logic, connected to
25 the access control logic, the access control data store, and
26 the access log, for classifying the access request into one
27 of critical and non-critical classes in dependence on the

1 access control data, and, in the event that the access is
2 classified into the non-critical class, for granting the
3 task access to the object and storing data indicative of the
4 access in the access log; and, access control decision logic
5 connected to the access control logic, the access log, the
6 access control data store, and the decision classifier
7 logic, for, in the event that the access is classified into
8 the critical class, granting or denying the task access to
9 the object in dependence on the contents of the access log
10 and the access control data.

11 11. An apparatus as recited in claim 10, wherein, in use,
12 the decision classifier logic, in the event that the access
13 is classified into the non-critical class, grants or denies
14 the task access to the object in dependence on the contents
15 of the access control data, and stores data indicative of
16 the grant or denial in the access log.

17 12. An apparatus as recited in claim 10, wherein the
18 non-critical class comprises a plurality of subclasses and
19 the decision classifier logic, in use, classifies the access
20 request into one of the subclasses in dependence on the
21 access control data.

22 13. An apparatus as recited in claim 10, wherein the
23 subclasses comprise a first subclass and a second subclass.

24 14. An apparatus as recited in claim 13, wherein the
25 decision classifier logic, in use, stores recovery data in
26 the access log if the access is classified into the second
27 subclass.

1 15. An apparatus as recited in claim 14, wherein the access
2 control decision logic, in use, inspects the access log to
3 identify a bad grant decision based on the contents of the
4 access log and the access control data, on detection of a
5 bad grant decision, effects a roll back of any objects
6 affected by the bad grant decision.

7 16. An apparatus as recited in claim 15, wherein the
8 rolling back comprises recovering data overwritten in the
9 object.

10 17. An apparatus as recited in claim 15, wherein the access
11 control decision logic, in use, performs the inspection
12 periodically.

13 18. An apparatus as recited in claim 15, wherein the access
14 control decision logic, in use, performs the inspection
15 during periods in which the data processing system is
16 otherwise idle.

17 19. Data processing system comprising: a central processor
18 unit; a memory; and apparatus as recited in claim 10
19 connected to the central processor unit and the memory.

20 20. Computer program element comprising computer program
21 code means which, when loaded in a processor of a computer
22 system, configures the processor to perform a method as
23 recited in claim 1.

24 21. An article of manufacture comprising a computer usable
25 medium having computer readable program code means embodied
26 therein for causing control of access to an object in a data
27 processing system, the computer readable program code means

1 in said article of manufacture comprising computer readable
2 program code means for causing a computer to effect the
3 steps of claim 1.

4 22. A program storage device readable by machine, tangibly
5 embodying a program of instructions executable by the
6 machine to perform method steps for controlling access to an
7 object in a data processing system, said method steps
8 comprising the steps of claim 1.

9 23. A computer program product comprising a computer usable
10 medium having computer readable program code means embodied
11 therein for causing control of access to an object in a data
12 processing system, the computer readable program code means
13 in said computer program product comprising computer
14 readable program code means for causing a computer to effect
15 the functions of claim 10.